

# WITH THE FARMERS

By Prof. W. F. MASSEY



**Keeping Sweet Potatoes in Cellar.**  
"I have a concrete cellar under my kitchen, with two windows for ventilation. How can I use this for keeping sweet potatoes? Door opens outside. Can I pile potatoes on the concrete floor, or will I have to put in shelving? The cellar is six feet in the clear, thirty feet long and fourteen feet wide, and extends under kitchen and dining-room. Walls eight inches thick, and there is one window on each side and three-foot door. How much heat will be needed, and can I keep Irish potatoes and onions in the same cellar?"

The cellar can be made use of to keep sweet potatoes if you put in stove to make heat after storing. The best way to store is to put the potatoes in slatted shipping crates in the field, handling them very carefully. The pile the crates so that the air can circulate freely around them. After all are in, start a fire, and run the temperature up to 55 or 60 degrees. Keep it up, with windows open, till the potatoes are well dried off. When the sweat they will go through after storing. After that a temperature of 45 to 50 degrees will be warm enough. But the windows should be darkened, for the darker you make the cellar the better. After drying off the sweet potatoes you can put in Irish potatoes on the floor, and onions in crates or on shelving. Watch the temperature in winter, and not allow it to get warmer than 50 degrees, and a lower temperature will be better for the Irish potatoes and onions. In fact, the onions will do better in an outbuilding that is close and dark, and even if frozen slightly will keep better than 40 degrees is warm enough for the Irish potatoes, and it might be best to partition off the coldest end of the cellar for them. Total darkness is best for all.

## Varieties of Cowpeas.

"I have an extra early cowpea of a creamy whitish color, which I thought was the New Era. But I sent to a seedman for pure New Era and he sent me a pea that is a bluish-gray color. Please tell me which is the right color for the New Era? The seedman doubtless sent you the true New Era, as the color you describe fits it. The pea you have is probably the Warren Extra Early.

The Warren pea is as early as the New Era, and in color is very similar to the late pea, called the Unknown and Wonderful. Then there is a large white pea with a black eye that is very early, and I have grown two crops of it in a season on the same land. It is larger than the common blackeye and earlier. The New Era is very similar, if not identical, with the pea long grown in Portsmouth, N. H., under the name of Revenue. It was found growing as a volunteer by a revenue officer in North Carolina, and they gave it that name. It is a bush and non-running pea, and about the most prolific in seed of any I know. The Warren is also a good seed maker.

## A Shaded Lawn.

"I want your advice about my lawn under oak trees. I turned under a crop of soy beans in the spring and sowed 80 lbs. beans, which are now about three and a half feet high. How shall I turn these under, and how long will it be necessary for them to decay before I can get a good firm seed bed for lawn grass, and what sort of fertilization should I use, and what kind of grass seed? I happen to know your soil, the blood-red Piedmont clay, a soil that will hold a fine seed if not drawn on by much by the spreading roots of the oak trees. I do not think that you can turn under that great growth and get the land in condition for sowing a lawn this fall. In fact, I do not think that it is necessary, and I would mow the soy beans and cure them for hay, and then break the land thoroughly and harrow in 500 pounds of acid phosphate an acre. Your red land does not specially need potash, and the legume roots will leave you plenty of nitrate. Work the land very smoothly, and grade it perfectly. Then sow an abundance of seed, for on this depends the future of a lawn. I would sow a mixture two-fifths red top grass and three-fifths Kentucky blue grass and sow fifty pounds of the seed an acre. Get the extra clean blue grass seed. Sow the seed at any time during the fall up to November, but September will be best. Brush the seed in lightly with a rake or smoothing harrow, and then scatter about four pounds an acre of white clover seed, as you cannot keep this mixed with the light grass seed. Getting a good stand this fall, give the grass a heavy dressing of tobacco dust in the spring, which you can get from any of the smoking tobacco factories, and then as soon in the spring as the grass will catch the lawn mower, start the mower, and keep it cut weekly in favorable weather, and let the cut grass lie where it falls, and it will soon disappear, letting the grass get so tall that it has to be raked off is a bad practice, the cut grass will decay and help the soil if cut at the right state, and left there. Then after the blue grass gets well established start the lawn over occasionally in spring with air slacked lime and brush it in with a lawn rake, for the blue grass is a limestone grass and in our red clay needs a little lime about once in five years.

But you can maintain a blue grass sod, and I advise the red top merely for the start, as it comes in quickly and gives the slower blue grass a chance. Annual top dressing with a good fertilizer is also important, but do not use stable manure on the lawn, as that favors the growth of weeds and crab grass. The tobacco dust is

as good a lawn dressing as anything I know.

**A Hog Pasture, Alfalfa and Crimson Clover.**  
"On land that is good and well deeply plowed in the spring and 800 pounds of fertilizer used and planted to corn, I want to get a permanent hog pasture for all the year round. It is a sandy loam, with a strong, red-clay subsoil. Can I sow the seed and cover with a one-horse cultivator? One acre in this lot. Another acre was prepared in same way and fertilized and sown to crimson clover, which was turned under and peas sown among the corn when it was laid by. I want to put this acre in alfalfa. How should I prepare the land? Soil like the other acre, but richer. A third acre lot has a heavy growth of peas on it, and I want to put crimson clover on this acre. How shall I prepare it? The soil is good."

For a permanent pasture for hogs I know of no grasses better than a mixture of ten pounds of orchard grass, ten pounds of perennial rye grass and ten pounds of tall meadow oats grass, with a small amount of red clover seed scattered after sowing the grass seed, and all lightly brushed in with a smoothing harrow. Prepare the land well after cutting the corn and make the surface fine with disk and spike harrow before sowing. On the three acres where you want to get alfalfa I would cut the peas and cure them for hay after getting the corn off. Then plow the land well and harrow in a ton of slaked lime an acre, and then apply 500 pounds an acre of acid phosphate and sow twenty-five pounds of seed an acre and brush these in too with the smoothing harrow. On the alfalfa alone, sow 100 lbs. peas for hay and disk the stubble over finely and sow fifteen pounds of crimson clover seed an acre. Get this seed in late in August or early in September.

## A Sweet Soil Necessary for Most Legumes.

Clovers, alfalfa and others of the legume family are all green manures, and combine in forms that plants can use the free nitrogen gas in the air. They do this through bacteria that live in little knots or nodules on the roots, which cause the roots to secrete a sticky acid conditions in the soil. There are some few exceptions to this, for cowpeas and a few other plants have bacteria that do not mind soil acidity, while those that live on clover and alfalfa demand a well sweetened soil. Lime Carbonate the Great Soil Sweetening Material.

We can make the soil sweet for these bacteria by the use of lime. Burnt lime, slaked and allowed to get by the action of the air, returned to the condition of a carbonate, is the readiest and best way of restoring the acid condition in the soil. The natural carbonate in the lime rock pulverized very finely will answer the same purpose if used in double the amount. Alfalfa especially seems to demand large supplies of lime carbonate, and on this it is common to use a ton of slaked burnt lime or two tons of the pulverized limestone an acre. Lime should never be plowed under deeply, it tends always to sink in the soil, and we want to start it near the surface, so that it will go through and affect the whole soil. Hence we apply it on the plowed land and simply harrow it in.

## Where to Apply Lime.

I have said that crops like alfalfa especially need lime, and, of course, the application for this crop should be made in the preparation of the soil for the sowing. But where to apply lime in the general farm rotation is a matter for serious consideration. The best place that I have found for the lime in the farm rotation is after turning down a clover or grass sod to plant corn. Harrowed in, then, at the rate of 1,000 pounds an acre, it promotes the decay and nitrification of the organic matter plowed under, and also prevents any acidity in the soil from this green vegetation turned under.

Then I have spread lime on red clover the second spring after sowing it and before vegetation starts in the spring, and brushed it in with a slant tooth harrow. This gave me wonderfully good results in the clover crop. But as a rule the place to use lime is after turning down green growth of any sort for planting a hoed crop.

## How Often Should Lime Be Used.

Frequently a farmer liming a field for the first time, and getting good results, is apt to jump to the conclusion that all his land needs is lime. But we must not forget that we do not use lime as a manure. Plants do use some lime as food, but for all the purposes of plant food, all of our cultivated soils have an abundance of lime. We use lime, as we have said, to sweeten an acid soil, to promote the activity of the nitrifying bacteria and to improve the physical texture of the soil, making a clay soil more mellow and a sandy soil more compact. It is found that the microscopic plants we call bacteria, which are the means through which the legumes get aerial nitrogen, and other forms which act upon the organic decay, and bring the nitrogen it contains into a form that green plants can use, have no green matter. But, like green plants, they need carbon. Green plants get carbon from the air, through the power that their green matter has to break up the combination of carbon dioxide and get the carbon. The bacteria, having no green matter, cannot do this. But they have the power to get the carbon they need from a chemical combination in the soil, and when lime carbonate is present they can get their carbon from this, and in this way the lime carbonate greatly promotes the growth and activity of these soil bacteria.

## Bisulphide of Carbon.

Nelson County: "Referring to the use of bisulphide of carbon for killing weevil in corn, please let me know if it will kill the unhatched eggs as well, and if it injures the value of the corn for feed or meal? Is there any way to exterminate the moth from an old corn house?" I am not sure, but hardly think that the fumes of the bisulphide of carbon will kill the eggs of the weevil. It evaporates very rapidly, and will leave no bad effects on the grain. A close building can be fumigated with hydrocyanic acid gas, but this would not be practicable in a slatted corn house. This gas is very deadly to any animal life, and is now largely used in fumigating nursery stock to destroy insects that may be on the plants, and in fumigating greenhouses to destroy insects. It is made by dropping cyanide of potassium into a solution of sulphuric acid, and great care is needed in using it, for the gas will kill men as well as bugs, but the weevil is not a moth, but a sucking beetle. In a cornhouse made in the usual manner it will be well before putting any corn in to completely spray every part of the interior with kerosene and then not store any corn till the odor of the kerosene has completely disappeared. Seed corn can be protected by mixing moth balls with it when stored. But I would not use these with corn that is to be used for food, as the odor may remain.

## NOVEL PLAN FOR BRIDGE APPROACH

Board Would Widen Fourteenth Street by Removing Sidewalks and Curbing.

## TO RELIEVE CONGESTION

Hirschberg Believes Plan Would Solve Traffic Problem, at Cost of \$10,000.

The latest attempt to solve the problem of the northern approach of the new Mayo Bridge is contained in a communication addressed to Mayor Alsie yesterday by the Administrative Board which recommends the removal of sidewalks and curbing on both sides of Fourteenth Street from Main Street to the bridge and the establishing of the property line as the grade line. This plan would give a forty-five-foot roadway approach to the bridge, which, in the opinion of Vice-Chairman Hirschberg, of the board, would be adequate.

"The cost of this improvement would be about \$10,000," said Mr. Hirschberg. "As far as concerns pedestrians, the proposed roadway would be almost as serviceable as the street is under present conditions, since during the greater part of the day the sidewalks are rendered impassable by skids running from trucks and wagons backed up against the curb, to the entrances of the business houses.

"With the sidewalks and curbing removed, wagons would be able to back up close to the doorways, leaving an open space in the centre for pedestrians, and north and southbound traffic. The arrangement would not be ideal, but it would relieve much of the congestion that now obtains in this street. An ordinance could later be passed compelling those stores that have back entrances to load and discharge their wares only in the rear."

## Letter to the Mayor.

A copy of the letter sent by the board to the Mayor follows:

"We request that you transmit to the City Council at its next regular meeting the following proposition for the widening of Fourteenth Street from Main Street southwardly to the bridge: "We would recommend as follows: that grade curb and sidewalk paving be removed, and that the grade line be established from the property line on the east to the property line on the west so as to do away with the congestion now existing in this street.

This would give a roadway from Main to Cary Streets of approximately forty-five feet, and from Cary southwardly to the bridge approximately fifty feet, said street to be paved with vitrified brick from the property line on the east to the property line on the west, and from Main Street southwardly to the bridge. We believe if the City Council would consider this matter seriously it would mean a great saving to the city relative to the approaches to our new Free Bridge, and answer all purposes."

## Bridge Open September 2.

City Engineer Bolling reported to the board that the bridge will be formally thrown open about September 2, and that it will be necessary to engage both a day and night watchman. He recommended that W. J. Doyle be transferred from the Free Bridge to the new Mayo Bridge, and that another watchman be appointed for day duty. The two watchmen on the new bridge, as well as the two on the Free Bridge, he recommended further, should be required to be on duty twelve hours a day. Mr. Bolling's recommendations were adopted.

The board approved the recommendation of Superintendent Knowles, of the Gas Works, that W. C. Adams be appointed chauffeur for the new automobile truck recently put into service in that department. It approved also the ordinance increasing the salary of Commonwealth's Attorney Hugh H. Hastings Court, Part II, from \$800 to \$1,000 a year.

## INCREASE IN ASSESSMENTS.

Amount to \$5,837,122 in Rockingham Against \$4,007,122 Last Year.  
[Special to The Times-Dispatch.]  
HARRISBURG, Va., August 28.—Assessments for taxes in Rockingham County for 1913 show an increase of 42 per cent over that in 1912, jumping from \$4,007,122 to \$5,837,122. Of this increase a little over \$500,000 was due to the energy of the grand jury that held extended session for weeks last year with taxpayers. The bank deposits given in show an increase from \$205,000 to \$240,000. Rockingham is the largest county in the State.

## ATTEMPT TO FORM SINGLE STANDARD

Millers and State Food Agents Meet to Thresh Out Bran Question.

At the request of millers all through the United States, the Board of Food and Drug Inspection, of the United States Department of Agriculture, is to act as arbiter in the effort to establish a uniform standard for bran in every State in the Union. Director Carl L. Alsberg has called a public hearing before the board in Washington at 10:30 o'clock this morning, when representatives of the millers and State and Federal food agents will appear to argue the case.

For the State Department of Agriculture, Food and Dairy Commissioner W. D. Saunders will make the trip to Washington and lift up Virginia's voice in the deliberations. Commissioner Saunders left the city for Washington yesterday afternoon and spent last night in conference with the food experts from other States who gathered in the national capital in anticipation of the bran hearing. On account of the lack of a uniform standard for bran in all States the millers of the country have been working under a handicap in attempting to transact business in more than one State. After repeated efforts to obtain their difficulties with State authorities, the millers appealed to Dr. Alsberg to have the Pure Food Board act as arbiter in the dispute, and after hearing both sides of the case established a formula which shall henceforth be known from coast to coast as the standard for bran.

# ACT BY TO-MORROW

If You Want ALL Back Pictures Free With Catalogue

For you get only the first thirty-five pictures free with the catalogue, and to-morrow Picture No. 35 will be printed. After-to-morrow, then, the first thirty-five pictures will NOT constitute ALL the back pictures. Read to-day's contest story about it.

# The Booklovers' Game Starts To-Day--For You

The Booklovers' Game is simply a game of solving 77 pictures. To-day Picture No. 34 is published.

If you get the thirty-three pictures already published, and get them FREE, then all you need to do is to continue on, like contestants who have been in this game from the first, clip out the balance of the seventy-seven pictures as they appear in the paper day after day.

You can get ALL the back pictures FREE by securing a Catalogue and an Answer Book. With the Catalogue you get Pictures Nos. 1 to 35 Free, and with the Answer Book you get Pictures Nos. 36 to 70 free.

START RIGHT NOW. No one has any advantage over you, for you will have all the pictures to date. All the old contestants have the pictures to date. They saved them one by one from the paper. YOU CAN GET THEM ALL IN A BUNCH FREE.

The Catalogue is a list of about 5,000 book titles, seventy-seven of which are guaranteed to be the titles represented by the seventy-seven pictures. THUS ALL THE CORRECT TITLES ARE IN THE CATALOGUE.

You will find ten (10) of these seventy-seven titles plainly marked in this catalogue by STARS. Thus you only have to fit these ten starred titles to ten of the seventy-seven pictures. This leaves you but sixty-seven titles, therefore, which you have to find for yourself.

The Answer Book aids you in submitting answers, for with an Answer Book you cannot possibly have any use for more than one copy of each picture, yet you can make as many as ten different answers to each picture.

GET THE BACK PICTURES, SAVE THE BALANCE OF THE SEVENTY-SEVEN PICTURES AS THEY APPEAR, AND START TO SOLVE THE PICTURES. THOSE COMING CLOSEST TO NAMING THE SEVENTY-SEVEN BOOK TITLES THAT THE SEVENTY-SEVEN PICTURES REPRESENT WILL RECEIVE THE SPLENDID AWARDS OFFERED BY THIS NEWSPAPER.

GET INTO THIS GAME NOW!  
To-Day Is a Money-Maker? To-Morrow Pays Dividends Only in Regrets!  
START TO-DAY. START TO-DAY.

The Times-Dispatch's Great \$1200.00 Gold Booklovers' Contest  
Picture No. 34 Date, August 29th



What Book Does This Picture Represent?  
Write Title and Name of Author in Form Below

Title .....  
Author .....  
Your Name .....  
Street and Number .....

City or Town .....  
TOTAL NUMBER OF PICTURES, 77. Contest began July 27th. Each day a different picture appears in this space. Cut them out. Save them until the last picture appears on October 11th. Don't send in partial lists. Wait until you have all the answers to the 77. Read Rules, Daily Story and Special Announcements in another part of this paper. It will help you win a prize. Extra pictures and coupons of any date that have appeared may be had at 2c. Enter to-day without registering your name. Merely Save Pictures and Coupons as they appear.

## USE THIS ORDER BLANK FOR CATALOGUE

If you cut this order form, fill it out and send or bring it in with the sum designated, you will receive the Official Copyrighted Contest Catalogue of about 5,000 book titles, and seven certificates redeemable for the first thirty-five pictures in the contest. In the catalogue are all the correct titles to the seventy-seven pictures. Catalogues, 35 cents at this office, 40 cents by mail.

Do Not Send Stamps or Silver. Send Check or Money Order.

Booklovers' Contest Editor,

The Times-Dispatch:

Inclosed find 40 cents, for which send me a Booklovers' Contest Catalogue of about 5,000 book titles and the seven certificates redeemable for the first thirty-five pictures.

Name .....  
Street and No. ....  
City ..... State .....

## GET AN ANSWER BOOK (it contains 77 double pages) AND 35 PICTURES FREE

You can make ten answers to each picture, yet only need but one copy of each picture.

On the upper page you paste a picture. On the lower section you write from one to ten book titles which you have selected for the picture pasted above.

You save time, labor and expense with an Answer Book, and it helps you to win.

USE THIS ORDER FORM FOR THE ANSWER BOOK.

Booklovers' Contest Editor, ....., 1913.

The Times-Dispatch:

Find herewith 80 cents (75 cents at office), for which deliver to me your Answer Book and six certificates, returnable as the pictures appear in the contest for Pictures Nos. 36 to 70.

Name .....  
Street and No. ....  
City ..... State .....

Do not send stamps or silver. Send check or money order.

## ENTER THIS CONTEST TO-DAY.

You can enter contest at any time. Order the paper sent you for three months beginning with issue of day your order is received.

Get in the contest right now. It is just becoming interesting. Don't miss a single picture. Get this paper every day.

## SUBSCRIPTION RATES.

Daily and Sunday by carrier, 65c a month.

Daily and Sunday by mail for three months, \$1.50.

Price of paper per single copy:

Daily, 2c.

Sunday, 5c.

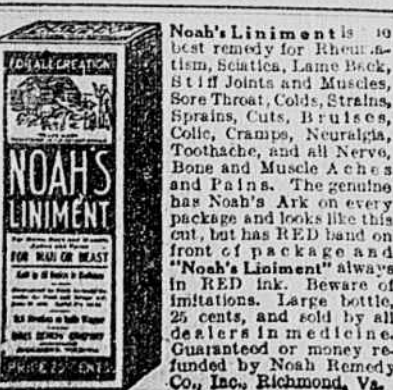
The principal features in connection with this contest are copyrighted by the Booklovers' Contest Co., San Francisco, Cal.

## CASTORIA

For Infants and Children.

The Kind You Have Always Bought

Bears the Signature of J. C. Fitch



NOAH'S LINIMENT